

IN THE DRAWINGS:

Each of Figures 1 and 2 has been amended as shown on the replacement sheets attached hereto.

REMARKS

In the Final Rejection dated October 12, 2006, the drawings were objected to because the Examiner stated the signal detector must be shown in the drawings.

The Examiner also noted errors in the headings in the printed publication of this application in paragraphs [0001] and [0003].

Claim 7 was rejected under 35 U.S.C. §112, first paragraph as failing to comply with the written description requirement because the Examiner stated neither structure nor method for the subject matter of claim 7 is clearly indicated in the original specification or drawings.

Claims 1-9 were rejected under 35 U.S.C. §103(a) as being unpatentable Hill et al. in view Zarychta.

Applicant notes with appreciation the interview courteously afforded the undersigned representative of the Applicant on February 7, 2007, wherein the above items were discussed (with the exception of the informalities) in the specification. With regard to those informalities, Applicant acknowledges that in the printed publication of this application that was prepared by the Patent and Trademark Office, the headings for paragraphs [0001] and [0003] have missing letters therein. If the Examiner reviews the originally-filed application in PAIR, however, the Examiner will see that the originally-filed application did not contain these errors, and therefore these errors have occurred within 30566-0037 the Patent and Trademark Office during the preparation of the printed publication of this application. Applicant is unaware how Applicant can correct errors in the printed publication itself, particularly when those errors do not appear in any papers that were originally filed by the Applicant. If the original application papers are used to prepare the patent that will

this application, those errors should not be present, since they do not exist in the papers that Applicant has filed. If the Examiner has any authority to correct errors in a document printed by the Patent and Trademark Office, the Examiner's intervention and assistance would be welcomed by the Applicant.

As to the rejection of claims 7-9 under 35 U.S.C. §112, first paragraph as failing to comply with the written description requirement, as discussed at the interview Applicant submits that at least the last paragraph at page 6 of the present specification and the first paragraph at page 7 provide support for the subject matter of claims 7-9 in compliance with the written description requirement. As stated in those paragraphs, because of the close proximity of the vagus nerve to the phrenic nerve, stimulation of the phrenic nerve presents the risk of unwanted stimulation of the vagus nerve. Stimulation of the vagus nerve has the effect of slowing the heartbeat rate (brachycardia). By filtering out heart related signals (such as the entire ECG or the R-wave), as described in these paragraphs of the present specification, the degree of stimulation of the vagus nerve can be ascertained. The filtered-out heart related signals will indicate the extent to which the heartbeat rate has decreased from the patient's "normal" rate, thereby indicating the degree of stimulation of the vagus nerve. As stated in the aforementioned paragraphs of the specification, stimulation of the phrenic nerve can then be adjusted, as needed, to minimize its effect on the vagus nerve.

It was agreed at the interview that this passage in the specification does satisfy the written description requirement with regard to the embodiment of analyzing an ECG signal. Since that subject matter already was included in claim 8, depending from claim 7, the subject matter of claim 8 has now been incorporated in

claim 7, and claim 8 has been cancelled. It was agreed at the interview that amending claim 7 in this manner would overcome the rejection under §112, first paragraph.

It was also agreed at the interview that the Hill et al. and Zarychta references, in combination, do not disclose or suggest the subject matter of claim 7 of analyzing an ECG signal as an indicator of the degree of stimulation of the vagus nerve, and then regulating the pulse generator, that generates stimulation pulses to stimulate the phrenic nerve, dependent on this detected degree of stimulation of the vagus nerve by the stimulation pulses. As discussed in the aforementioned passage in the specification relating to the issue under §112, the vagus nerve and the phrenic nerve are in close proximity to each other, and therefore stimulation of the phrenic nerve unavoidably also results in unwanted stimulation of the vagus nerve. The vagus nerve plays a role in the heartbeat rate, namely stimulation of the vagus nerve slows the heartbeat rate. Therefore, by detecting the ECG signal, slowing of the heartbeat rate can be identified and this is indicative of the degree of unwanted stimulation of the vagus nerve, and so the stimulation of the phrenic nerve can be regulated accordingly.

The Hill et al. and Zarychta references also were the subject of discussion at the interview with regard to claims 1-6, but the Examiner stated at the interview that the rejection of claims 1-6 based on Hill et al. and Zarychta was still considered to be proper.

By the present Amendment, therefore, independent claim 1 has been cancelled, and claims 2, 3 and 6 have been made to depend from claim 7, instead of

through claim 1. Since the subject matter of claims 4 and 5 is now already embodied in claim 7, those claims have been cancelled.

It was agreed at the interview that these changes would place the application in condition for allowance, and that such changes would not raise new issues requiring further searching or consideration, and therefore the present Amendment would be enterable at this stage of prosecution, after the Final Rejection.

As also agreed at the interview, each of Figures 1 and 2 has been editorially amended to identify block 22 in Figure 1 as a signal analyzer/detector, and the same legend has been applied to block 32 in Figure 2. It was agreed at the interview that this would overcome the drawing objection.

Entry of the present Amendment and reconsideration of the application are therefore respectfully requested.

Submitted by,

 (Reg. 28,982)

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